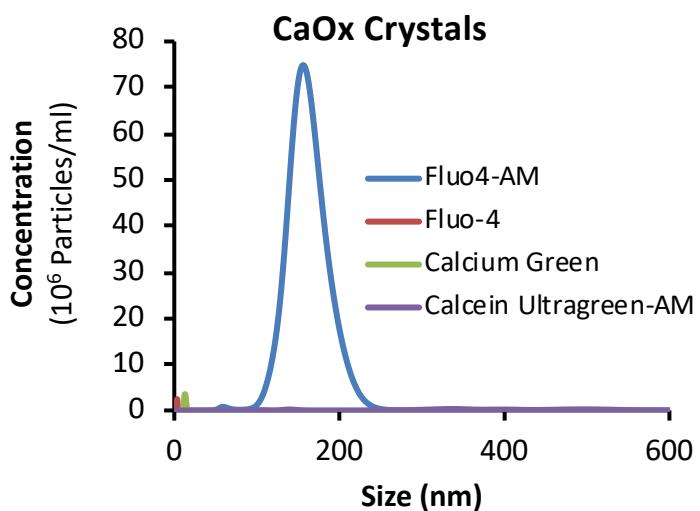
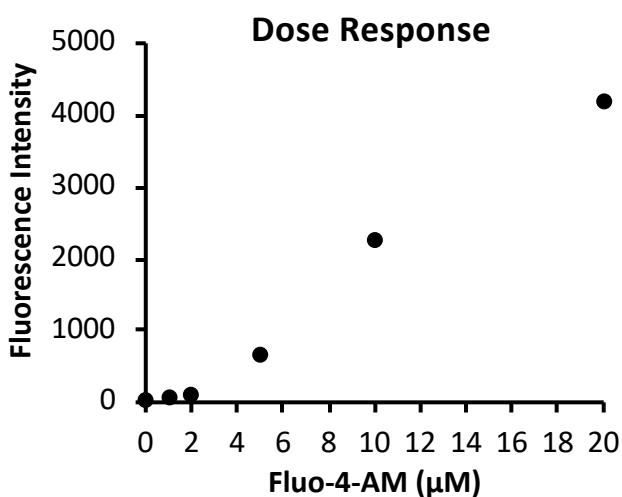


S. Figure #1

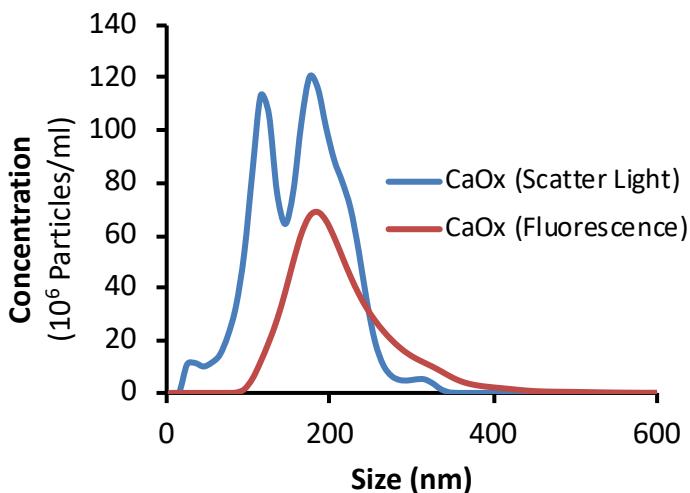
A



B



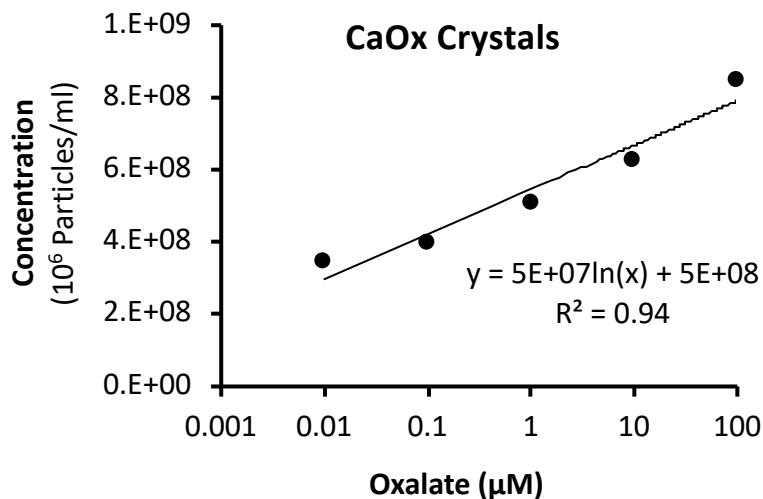
C



Supplementary Figure 1: The detection of urinary crystals using fluorescence dyes.

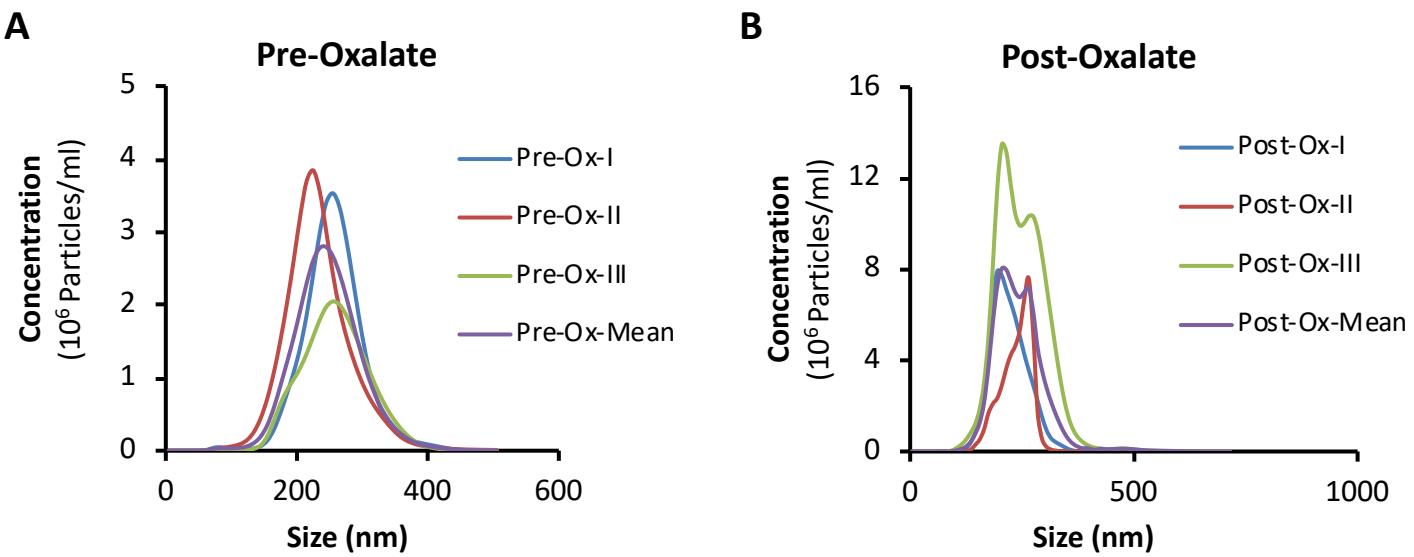
(A) Size distribution of CaOx crystals (50 μM) labelled with Calcium green, Fluo-4-pentasodium (Fluo-4), and Fluo-4 AM (all calcium dyes) or Calcein Ultragreen AM (plasma membrane dye) using Nanoparticle Tracking Analysis (NTA). (B) CaOx crystals (50 μM) treated with varying concentrations (0, 1, 2, 5, 10, and 20 μM) of Fluo-4 AM using a BioTek Synergy HT plate reader (BioTek, Winooski, VT; Gen5 software). (C) Size distribution of CaOx crystals (50 μM) detected with a fluorescence filter (labelled with Fluo-4 AM) versus scatter light using NTA.

S. Figure #2



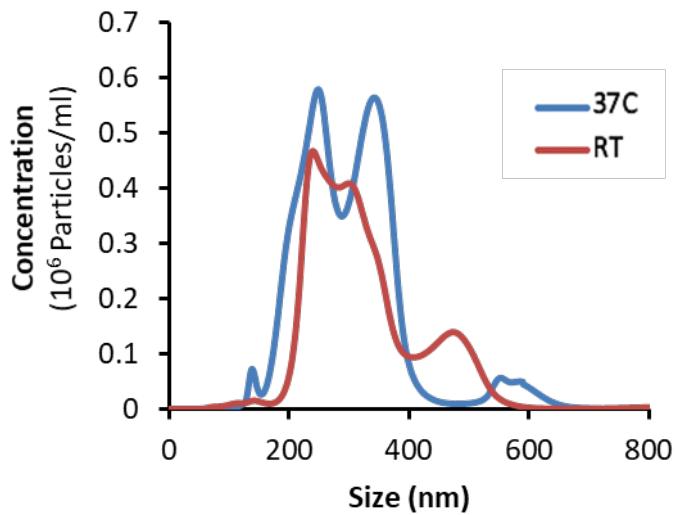
Supplementary Figure 2: The detection of CaOx crystals at various concentrations using Nanoparticle Tracking Analysis (NTA). Correlation of CaOx crystals (0.01, 0.1, 1, 10, and 100 μM) with the concentration of particles/ml.

S. Figure #3



Supplementary Figure 3: Technical replicates of samples using Nanoparticle Tracking Analysis (NTA). Size distribution of (A) pre-oxalate and (B) post-oxalate technical replicates labelled with Fluo-4 AM using NTA.

S. Figure #4



Supplementary Figure 4: The effects of temperature on urinary crystals using Nanoparticle Tracking Analysis (NTA). Size distribution of urinary crystals stored at room temperature (RT) or 37°C for 2 hours prior to being labelled with Fluo-4 AM and assessed using NTA.